

Appendix A

Old Soldiers Home Levee Setback Project Description

United States, et al. v. AOL Express, Inc., et al.

Appendix A

Old Soldiers Home Levee Setback Project

1. Project Description

The project will consist of a setback levee along the Puyallup River near Orting, WA at river miles 21.3 to 22.5, approximately 6376 feet in length, with a maximum toe width of 50 feet, along the inside of an existing meander bend. The top will be 12 feet wide, and the river face will have a buried toe of 9 feet width. Total width is expected to vary based on height of levee. The levee will be approximately 950 feet from the existing levee at the widest portion of the site. The back slope will be 5 to 1, and the fore slope will be 2 to 1. The levee will consist of approximately 55,107 Cubic Yards (CY) of gravel, 3506 CY of ¾ inch minus crushed rock, and will be faced with 5929 CY of 30 inch minus riprap. The alignment of the levee is shown in the figures in Section 6 below. The alignment follows property boundaries and roads as closely as possible until it turns back into the existing levee at 5500 feet. The alignment maximizes the floodplain area, forested wetland, and relict side-channel habitat that will be reconnected (67 acres).

Concurrent with this construction, rip-rap will be added to three existing areas at the project site and in the project vicinity: (1) 350 feet upstream of the upstream project end on the left bank; (2) between the downstream project end and a point 100 feet below the Calastoga bridge on the left bank; (3) 150 feet of work at and along the right bank, only as needed along the right bank to protect the existing levee from damage due to changes in river hydraulics. Specific construction features are described in Table 1.

Table 1 Summary of the construction features

Feature Name	Length (ft)	Width (ft)	Riprap Qty (CY)	Comments
Set-back Levee	6376	50	5929	950ft max setback from river
Right Bank levee upgrade	6472	Varies	3054	Sized based on need to reach 3ft total thickness based on existing riprap
RT bank below Bridge	145	Varies	84	
LFT Bank Below Bridge	150	50	89	
DS LFT Bank Existing levee	1090	50	1327	Flap gate for existing opening
US Left Bank Existing Levee	350	50	168	Protects new toe and tie-in point
Above Project LFT bank existing Levee	150	50	86	2900 ft above US end of new levee

Construction is expected to begin in July 2006 with the setup of staging and construction management areas. Access will be obtained through Pierce County property, and through a construction access easement from the Washington State Old Soldiers Home. Construction of the levee will begin from the down stream end, and work up stream. Concurrently, the existing levee will be demolished including all armor or face rock to the toe of the levee, which is at or below the Ordinary High Water mark (OHW). Materials from the existing levee will be salvaged and included in the new setback levee. Construction will proceed in this parallel fashion, with additional materials brought to the site from a Pierce County gravel pit located approximately 1 mile away. Construction is expected to be completed no later than the end of 2007. Once the setback levee is complete, two channels will be excavated in a downstream – upstream fashion, creating two openings of 200 linear feet to facilitate reconnection to the river. The channels will be sited based on field conditions, and their final positions and sizes will be reported in the As-Built drawings. Existing levee vegetation larger than 8 inches DBH will be preserved, to comply with the policies of the Puyallup Tribe Vegetation Settlement agreement. No new vegetation will be planted on the existing levee once its demolition is completed. No vegetative plantings are anticipated within the already heavily vegetated site.

2. Required Permits and Approvals

- a) Hydraulic Project Approval, Washington Department of Fish and Wildlife
- Permit No. 102160-1, issued July 12, 2005
- b) Pierce County Determination of Nonsignificance and Adoption of Existing Environmental Document
- Application No. 402265, issued April 25, 2005
- c) Final Environmental Assessment, U.S. Army Corps of Engineers, Seattle District
- issued February 2005
- d) Finding of No Significant Impact (FONSI), U.S. Army Corps of Engineers, Seattle District
- issued March 31, 2005
- e) Consultation under the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act.
 - Letter of concurrence by NOAA, August 3, 2004
 - Letter of concurrence by U.S. Fish and Wildlife Service, October 20, 2004
- f) Section 404 Permit, U.S. Army Corps of Engineers, Seattle District
- pending
- g) Shoreline Substantial Development Permit, City of Orting
- pending

- h) Shoreline Substantial Development Permit, Pierce County
- pending
- i) Section 401 Water Quality Certification, Washington Department of Ecology
- pending

3. Project Construction and Development Schedule

- | | |
|---|---|
| a. Permit Applications filed | Done |
| b. Ninety-percent design completed | July 1, 2006 |
| c. Construction completion | Two years after entry of this Consent Decree |
| d. Post-Construction Report (5 a below) | 180 days after Trustees' Notice of Approval of Completion for the Project |
| e. Project completion accounting | 180 days after Trustees' Notice of Approval of Completion for the Project |

4. Project Performance Evaluation Plan

a. Defendants will provide the Trustees with a post-construction report including a letter of completion from Pierce County's contractor and "as-built" drawings demonstrating that the existing river levee has been reduced in height to the Ordinary High Water mark within the Project area as described in section 1 above. If the post-construction "as-built" drawings do not demonstrate compliance with this height limit, the defendants will be required to perform additional work as necessary to bring the levee down to the specified level. Consent decree enforcement terms (stipulated penalties and liquidated damages) will be tied to this element.

b. The Trustees shall perform spawning surveys to be conducted every 10 days from September 1 through December 31. The surveys will begin the year after construction is complete and will run for two consecutive years. The defendants have reimbursed the Trustees for the cost of such surveys in the Restoration Oversight Costs provided in the Consent Decree. No performance objective (i.e., X% increase in spawning, etc.) or adaptive management will be tied to this monitoring element, and the information derived from the spawning surveys shall not provide a basis for any additional work by the Defendants. It is intended solely to provide information to the Trustees to assist them in determining whether levee setback projects achieved their intended purpose.

5. Project Adaptive Management Plan

None

6. Exhibits:

A. Project Map

B. Project Drawings

C. Project Photos

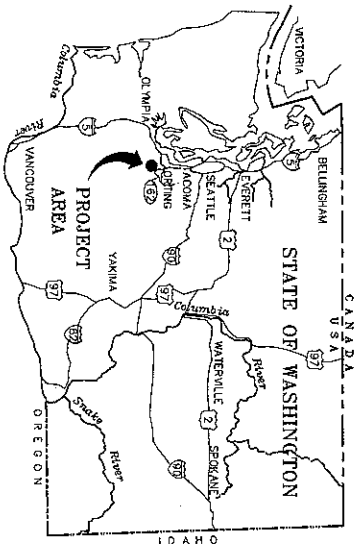
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Exhibit B Project Drawings

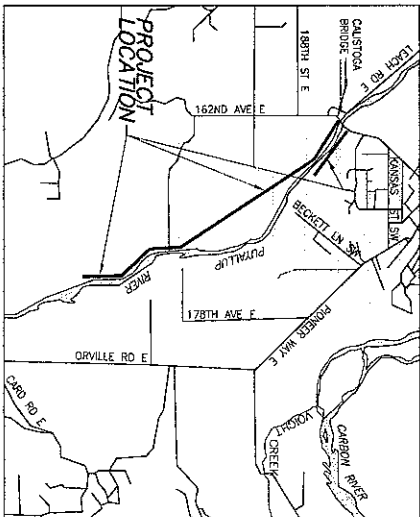


Pierce County

STORM DRAINAGE AND SURFACE WATER MANAGEMENT UTILITY OLD SOLDIER'S HOME LEVEE SETBACK CIP Project Number D010-3-6



AREA MAP

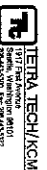


LOCATION MAP

DRAWING INDEX

GENERAL	
1 OF 23	G01 LOCATION MAP AND DRAWING INDEX
2 OF 23	G02 ABBREVIATIONS, LEGEND AND SUMMARY OF QUANTITIES
3 OF 23	G03 STRUCTURAL NOTES AND CONSTRUCTION SEQUENCE
CIVIL	
4 OF 23	C01 SITE CONTROL PLAN AND PROJECT LIMITS
5 OF 23	C02 PROJECT CONTROL TABLES AND TYPICAL CROSS SECTIONS
6 OF 23	C03 LEFT BANK LEVEE - PLAN AND PROFILE - STA 10+00 TO STA 110+36
7 OF 23	C04 SETBACK LEVEE - PLAN AND PROFILE - STA 0+00 TO STA 13+50
8 OF 23	C05 SETBACK LEVEE - PLAN AND PROFILE - STA 13+50 TO STA 27+00
9 OF 23	C06 SETBACK LEVEE - PLAN AND PROFILE - STA 27+00 TO STA 41+00
10 OF 23	C07 SETBACK LEVEE - PLAN AND PROFILE - STA 41+00 TO STA 51+75
11 OF 23	C08 LEFT BANK LEVEE - PLAN AND PROFILE - STA 151+75 TO STA 162+00
12 OF 23	C09 LEFT BANK LEVEE - PLAN AND PROFILE - STA 162+00 TO STA 182+50
13 OF 23	C10 RIGHT BANK LEVEE - PLAN AND PROFILE - STA 182+50 TO STA 193+00
14 OF 23	C11 RIGHT BANK LEVEE - PLAN AND PROFILE - STA 193+00 TO STA 213+00
15 OF 23	C12 RIGHT BANK LEVEE - PLAN AND PROFILE - STA 213+00 TO STA 233+00
16 OF 23	C13 RIGHT BANK LEVEE - PLAN AND PROFILE - STA 233+00 TO STA 253+00
17 OF 23	C14 THE-BACK LEVEE AND TURN OUT - PLAN, PROFILE AND SECTION
18 OF 23	C15 LEFT BANK REMOVAL - PLAN AND TYPICAL SECTION
19 OF 23	C16 HABITAT CHANNEL IMPROVEMENT PLAN AND PROFILE
20 OF 23	C17 HABITAT INLET AND OUTLET CHANNEL - PLAN, PROFILE AND CROSS-SECTIONS
21 OF 23	C18 HABITAT CHANNEL IMPROVEMENTS - PLAN AND SECTION
22 OF 23	C19 CIVIL DETAILS
23 OF 23	C20 TEMPORARY EROSION SEDIMENTATION CONTROL PLAN

DESIGNED BY L. CHOWEN	DATE 11/30/05
CHECKED BY A. KLEIN	DATE 11/30/05
APPROVED BY P. J. JONES	DATE 11/30/05



Pierce County
DEPARTMENT OF PUBLIC WORKS AND UTILITIES
WATER PROGRAMS
1000 UNIVERSITY PLACE, WA 98407-1078

90%

OLD SOLDIER'S HOME LEVEE SETBACK
LOCATION MAP AND DRAWING INDEX

C.I.P. D010-3-6

STRUCTURAL NOTES

ES

STRUCTURE EXCAVATION CLASS B INCLUDING HAUL

CODE DESIGNATION	STATION
SHEET 5	

SHEET 6

SHEET 7

13345

SHEET 5

[illegible]

Pierce County

DEPARTMENT OF PUBLIC WORKS AND UTILITIES
WATER PROGRAMS
3650 64th STREET WEST
UNIVERSITY PLACE, WA 98467-1076

90%

OLD SOLDIER'S HOME LEVEE SETBACK
CLAYTON AVENUE AND 191 RD STREET EAST
STRUCTURAL NOTES AND
CONSTRUCTION SEQUENCE
C.I.P. D010-3-6
SHEET

GRAPHIC SCALE WILL
BE SHOWN IN THIS
CORNER ON ALL
SHEETS.

**CALL 2 DAYS
BEFORE YOU DIG
1-800-424-5555**

SHEET 3 OF 23

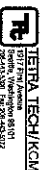
PROJECT CONSTRUCTION SEQUENCE

NOTES:
THE FOLLOWING IS THE RECOMMENDED CONSTRUCTION SEQUENCE

1. INSTALL CONSTRUCTION LIMIT BOUNDARY AND TEMPORARY EROSION CONTROL FACILITIES
2. PREPARE ACCESS ROAD AND TEMPORARY STOCKPILE AREA.
3. CLEAR OLD LEVEE, EXPOSED EMBANKMENT, AND EXISTING STOCKPILE AND STOCKPILE IN TEMPORARY STOCKPILE AREA.
4. REGRADE LEVEE REMOVAL AREA AND HYDROSEED TO MINIMIZE EROSION.
5. PROCEED OLD LEVEE MATERIAL FOR USE AS EMBANKMENT MATERIAL FOR LEVEE SECTIONS.
6. CLEAR AND GRUB RIGHT BANK LEVEE FROM STA 0+00 TO STA R2+40.00
7. RAISE AND STABILIZE EXISTING RIGHT BANK LEVEE FROM STA 0+00 TO R2+40.00
8. CLEAR AND GRUB LEFT BANK LEVEE FROM STA 10+00 TO 110+36.00
9. CLEAR AND GRUB STOCKPILE LEVEE SILE FROM STA 0+00 TO 51+50.00
10. CONSTRUCT SEBANK LEVEE
11. CLEAR EXISTING LEFT BANK RETIEMENT FROM STA 51+65 TO 76+17
12. RAISE AND STABILIZE LEFT BANK LEVEE FROM STA 51+65 TO 76+17
13. CONSTRUCT HABITAT CHANNEL OUTLET
14. CONSTRUCT HABITAT CHANNEL
15. CONSTRUCT HABITAT CHANNEL INLET
16. REMOVE UNUSED MATERIAL AND TEGC BMPs.
17. RESTORE UNUSED ROADS AND HYDROSEED DISTURBED AREAS THAT NEED ADDITIONAL HYDROSEED OR HAVE NOT BEEN HYDROSEEDDED.

DRAWING NO. 3440052
 DESIGNED BY: L. GORDON
 CHECKED BY: A. WELCH
 SURVEYED BY: J. WELCH
 DATE: 11/30/05

NO. DATE REVISION BY APPROVED

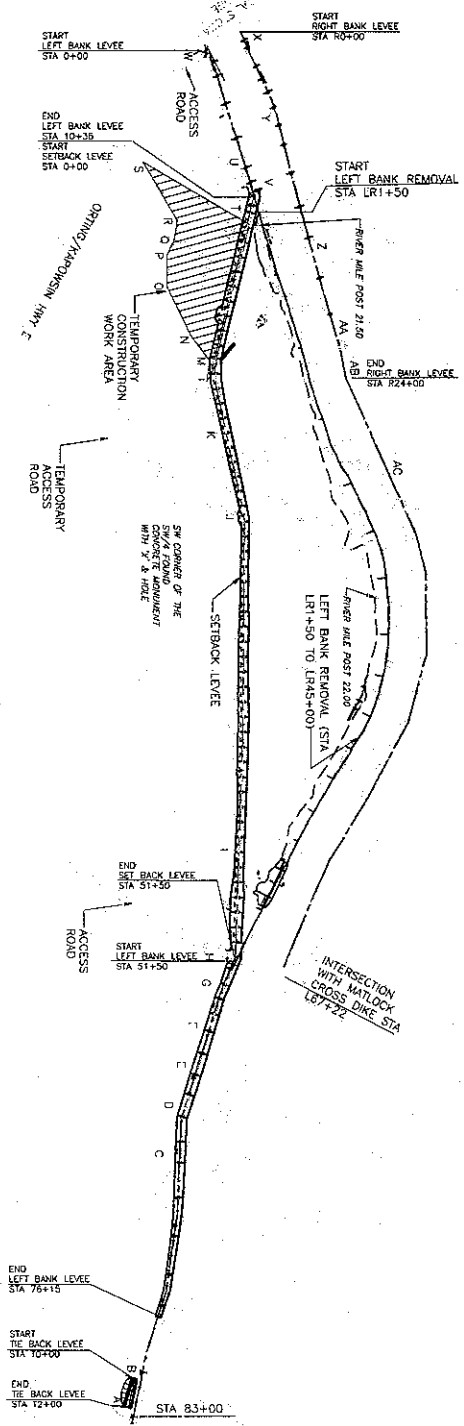
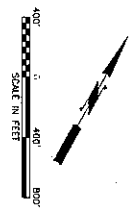


Pierce County
 DEPARTMENT OF PUBLIC WORKS AND UTILITIES
 WATER PROGRAMS
 1000 1ST STREET, NW
 OLYMPIA, WA 98501-1078

90%

OLD SOLDIER'S HOME LEVEE SETBACK
 CALISTOGA AVENUE AND 9th STREET EAST
 SITE CONTROL PLAN
 AND PROJECT LIMITS
 C.I.P. D010-3-6

SHEET : OF 23



COORDINATES

POINTS	NORTHINGS	EASTINGS	DESCRIPTIONS
A	638661.60	1217698.26	END TIEBACK LEVEE CENTERLINE
B	638661.60	1217698.26	START TIEBACK LEVEE CENTERLINE
C	638661.60	1217698.26	60 FOOT EASEMENT CORNER
D	638661.60	1217698.26	60 FOOT EASEMENT CORNER
E	638661.60	1217698.26	60 FOOT EASEMENT CORNER
F	638661.60	1217698.26	60 FOOT EASEMENT CORNER
G	638661.60	1217698.26	60 FOOT EASEMENT CORNER
H	638661.60	1217698.26	60 FOOT EASEMENT CORNER
I	638661.60	1217698.26	60 FOOT EASEMENT CORNER
J	638661.60	1217698.26	60 FOOT EASEMENT CORNER
K	638661.60	1217698.26	60 FOOT EASEMENT CORNER
L	638661.60	1217698.26	60 FOOT EASEMENT CORNER
M	638661.60	1217698.26	60 FOOT EASEMENT CORNER
N	638661.60	1217698.26	60 FOOT EASEMENT CORNER
O	638661.60	1217698.26	60 FOOT EASEMENT CORNER
P	638661.60	1217698.26	60 FOOT EASEMENT CORNER
Q	638661.60	1217698.26	60 FOOT EASEMENT CORNER
R	638661.60	1217698.26	60 FOOT EASEMENT CORNER
S	638661.60	1217698.26	60 FOOT EASEMENT CORNER
T	638661.60	1217698.26	60 FOOT EASEMENT CORNER
U	638661.60	1217698.26	60 FOOT EASEMENT CORNER
V	638661.60	1217698.26	60 FOOT EASEMENT CORNER
W	638661.60	1217698.26	60 FOOT EASEMENT CORNER
X	638661.60	1217698.26	60 FOOT EASEMENT CORNER
Y	638661.60	1217698.26	60 FOOT EASEMENT CORNER
Z	638661.60	1217698.26	60 FOOT EASEMENT CORNER
AA	638661.60	1217698.26	60 FOOT EASEMENT CORNER
AB	638661.60	1217698.26	60 FOOT EASEMENT CORNER
AC	638661.60	1217698.26	60 FOOT EASEMENT CORNER

CONSTRUCTION LIMITS

LEGEND

- FOUND MONUMENT AS NOTED
- SET 1/2" REBAR & CAP, DEB LS 16930
- (C) CALCULATED
- (D) DEED

BASE OF BEARINGS: WASHINGTON SOUTH
 ZONE COORDINATES (NAD 83/91)

NOTES

1. THERE ARE THREE ACCESS ROADS TO THE PROJECT. THE ACCESS POINTS ARE SHOWN ON THIS CONTROL PLAN.
2. THE ACCESS ROADS WILL BE SURFACED WITH 2 INCHES (MINUS 1 1/4" CRUSHED SURFACING BASE COURSE) PRIOR TO CONSTRUCTION. ROAD SURFACING WILL BE MAINTAINED THROUGHOUT CONSTRUCTION.

PIERCE COUNTY MONUMENT NOTES

PIERCE COUNTY RIVER IMPROVEMENT MONUMENTS
 RIVER MILE POST 21.50
 FOUND 3" BRASS DISK IN CONCRETE MONUMENT
 WITH PUNCHMARK AND STAMPED RMP 21.50.
 N 643916.5728
 E 1214463.5894
 ELEV. 205.00
 RIVER MILE POST 22.00
 FOUND 3" BRASS DISK IN CONCRETE MONUMENT
 WITH PUNCHMARK AND STAMPED RMP 22.00
 N 643916.5728
 E 1214463.5894
 ELEV. 221.07